
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Crim et al.

Attorney Docket No.: CLARP027/P2616

Application No.: 09/771,143

Examiner: PHAM, HUNG Q.

Filed: January 26, 2001

Group: 2168

Title: USING A CALCULATION EXPRESSION
TO DEFINE AND CONTROL ACCESS
RIGHTS FOR RECORDS IN A DATABASE

Confirmation No.: 6194

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Signed: /swx/

Susan W. Xu

**TRANSMITTAL OF REPLY BRIEF
IN RESPONSE TO EXAMINER'S ANSWER**

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Sir:

Transmitted herewith is the Reply Brief In Response To Examiner's Answer mailed January 7, 2008.

This reply brief is being filed within two (2) months of the mailing date of the Examiner's Answer.

Applicant believes that no extension of term is required. If an additional extension of time is required, however, please consider this a petition therefor.

☒ Charge any additional fees or credit any overpayment to Deposit Account No. 50-4481, (Order No. CLARP027).

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex Parte Crim et al.

Application for Patent

Filed: January 26, 2001

Serial No.: 09/771,143

Group Art Unit 2168

Examiner HUNG Q. PHAM

For:

USING A CALCULATION EXPRESSION TO DEFINE AND CONTROL ACCESS
RIGHTS FOR RECORDS IN A DATABASE

REPLY BRIEF

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Signed: /swx/
Susan W. Xu

For the convenience of the Board, the following remark addresses the points raised by the Examiner in order in which they appear in the Examiner's Answer.

5 **A. *Bapat et al.* does NOT teach or suggest defining a calculation expression as a variable expression defined based on a field of data used in records stored in a database, wherein the calculation expression can be evaluated based on the field of data, thereby allowing access to each individual record of the database to be selectively controlled based on a value of a field of data stored for each of the records of the database (Claims 11 and 38)**

10 (1) It is noted that the Examiner believes that the Granted Permissions Table of *Bapat et al.* can itself be considered as a table where each of its rows represents a record. However, contrary to the Examiner's assertion, it is respectfully submitted that none of the rows of the Granted Permissions Table of *Bapat et al.* defines access permission to a record of a database. Clearly, each row in the Granted Permissions Table of *Bapat et al.* defines an access level for an object and not a record of a database. In other words, 15 assuming the Granted Permissions Table of *Bapat et al.* may be considered a table with records, it is a table that defines access to objects, but not records.

(2) In response to the Applicant's argument that each item in each row of the Granted Permissions Table of *Bapat et al.* has a predetermined or fixed value, which cannot possibly be considered to be a calculation expression defined based on 20 variable data, as clearly recited in the claim language of: "*wherein said at least one filed of data is a variable which may have different values for each of said plurality of records*" (claim 11), the Examiner has noted that this "argument does not warrant consideration" because, the limitations from the specification are not read into the claims (Examiner's Answer, page 14).

25 The language of claim 11 plainly recites: "*wherein said calculation expression can be evaluated at least partly based on said at least one field of data in said plurality of records, wherein said at least one field of data is a variable which may have different values for each of said plurality of records.*" It is respectfully submitted that the claimed invention clearly recites a calculation expression defined based on variable 30 data, namely, at least one field of data in multiple records which can have different values in each one of the records. As such, it is very respectfully submitted that the Examiner has misrepresented the plain language of the claims before the Board.

Furthermore, it is respectfully submitted that it is not apparent how considering the limitations of the specification can possibly cause fixed values plainly shown in the 35 Granted Permissions Table of *Bapat et al.* to somehow be interpreted as variables, or

variables recited in the claims be interpreted to somehow mean fixed values, contrary to the plain language of the claims and the detailed description provided in the specification.

(3) In response to the Applicant's argument that no row of the Granted
5 Permissions Table of *Bapat et al.* defines an expression based on a field of data, the Examiner has apparently taken a part of claimed language and mixed it with the terminology used in *Bapat et al.* to assert that "each row in the Granted Permissions is defined based on FDN field of database tables containing records as at least one field
10 of data used in a plurality of records stored in the database" (Examiner's Answer, page 15). It is very respectfully submitted that this assertion is made without any factual evidence to support a finding that *Bapat et al.* teaches an expression based on a field of data and can only serve to mislead the Board.

(4) In response to the Applicant's argument that no row of the Granted
15 Permissions Table of *Bapat et al.* can be used to selectively control access to multiple records, the Examiner has merely asserted that it is apparent that rows of the Permissions Table of *Bapat et al.* are "evaluated." It is respectfully submitted that this assertion does not address how a single row of the Granted Permissions Table of *Bapat et al.* can possibly be used to control access for multiple records (or even objects) assuming purely for the sake of discussion that the objects in the Granted
20 Permissions Table of *Bapat et al.* can somehow be considered to be records).

(5) and (6) In response to the additional arguments respectfully presented on pages 11-12 of the Appeal Brief, the Examiner has again noted that "the limitations from the specification are not read into the claims." It is respectfully submitted that this
25 assertion does not address the Applicant's arguments and the Examiner has again misrepresented the plain language of the claims before the Board.

B. Bapat et al. does NOT teach or suggest defining a calculation expression that can be evaluated based on a state variable of a database (claim 14)

It is noted that *Bapat et al.* teaches that a "Null" value can represent all objects (e.g., 5000 managed objects). However, contrary to the Examiner's assertion, it is
30 respectfully submitted that *Bapat et al.* does not teach evaluating "Null" to obtain the represented value (i.e., 5000 managed object) which the Examiner has considered to be a state variable as it can represent the number of objects in a database. To the contrary, the "Null" value is a global representation of all records. As such, the "Null" value is not evaluated and requires no evaluation to determine the number of

records which the Examiner has alleged to be a state variable in the context of the claimed invention.

C. *Bapat et al.* does NOT teach or suggest evaluating a calculation expression for a plurality of records based on a field of data stored for each record (claim 11 and 38)

In response to the Applicant's argument that if a row of the Granted Permissions Table of *Bapat et al.* can somehow be considered to be a calculation expression, as the Examiner has alleged, the Examiner needs to at least show that *Bapat et al.* teaches evaluating a row of the Permissions Table of *Bapat et al.* for a plurality of records (or at least multiple times if not for records for objects or some other entity). It is very respectfully submitted that the Examiner has misrepresented the plain language of claims which clearly states: "evaluating a calculation expression for a plurality of records based on a field of data stored for each record." Clearly, evaluating a calculation expression for a plurality of records requires evaluating the calculation expression multiple times.

Accordingly, it is respectfully submitted that the Examiner has not addressed the question of how checking for an entry in a table could possibly teach evaluating an expression multiple times.

Furthermore, it is respectfully submitted that in response to the Applicant's argument that the methodology of *Bapat et al.* teaches away from evaluating a single expression because *Bapat et al.* clearly teaches providing multiple tables (Granted and Denied Permissions Tables shown in Figures 15a and 15B of *Bapat et al.*), the Examiner has noted in the Examiner's answer that "a row in either Granted Permissions Table or Denied Permissions Table is considered to be a calculation expression" (Examiner's Answer, pages 20 and 21). This response at best asserts that the methodology of *Bapat et al.* would require two "expressions" for determining access rights. However, providing two expressions that can be evaluated to determine access rights for the same record (or object or entity) seems unnecessary and contrary to the motivation for providing a single expression that can be evaluated for multiple records based on the context of the records.

Moreover, two expressions can conceivably result in two different results for the same record at a given time, and therefore do not present a real solution to the problem of controlling access rights for a database.

D. *Bapat et al.* does NOT teach or suggest determining at least one value for a field of data stored in a record and using it to evaluate a variable expression in order to control access to that record (claims 11 and 38)

In response to the Applicant's argument that *Bapat et al.* does not teach
5 "determining at least one value for a field of data in a record and using it to evaluate a variable expression in order to control access to that record," the Examiner has asserted that the FDN value of *Bapat et al.* is a value of a field of data in a record (Examiner's Answer, page 21). As such, the Examiner needs to show that the FDN value is evaluated to determine access to the same record that contains the FDN value
10 (see Figure 1A depicting a "fully distinguished" name (FDN of a managed object is shown)). In other words, a row in the Permissions Table of *Bapat et al.* should be used to determine access to itself (the same row) if the Examiner's assertion is correct. It is very respectfully submitted that having a row in a Permissions Table in order to determine access to itself (the same row) seems absurd and is not taught by
15 *Bapat et al.*

Accordingly, it is very respectfully submitted that the methodology of *Bapat et al.* is clearly distinguishable from the claimed invention as *Bapat et al.* teaches using an controlling access to objects by a permission table that is external to the objects and data stored in objects, whereas the claimed invention teaches determining access to a
20 record based on data internally stored in that record.

E. *The Examiner has failed to establish a prima facie case of obviousness because the Examiner has failed to address the claimed feature of: "defining a calculation expression for a password" (claims 11 and 38)*

In the Examiner's Answer, the Examiner has asserted that "teaching of user
25 authorizing implies that use of a conventional password as taught by *Elmasri* for protecting access" (Examiner Answer, page 22).

To summarize the claimed invention, Figure A below depicts a database 10 that includes a plurality of tables (or files) 12 where a particular table (or file) 12a is represented with a plurality of records R (R_1 - R_n).

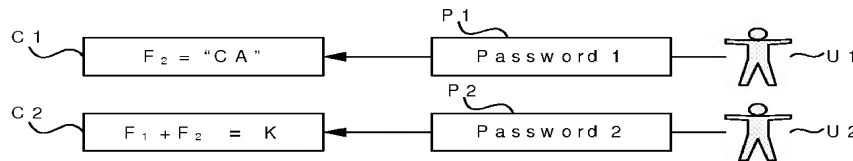
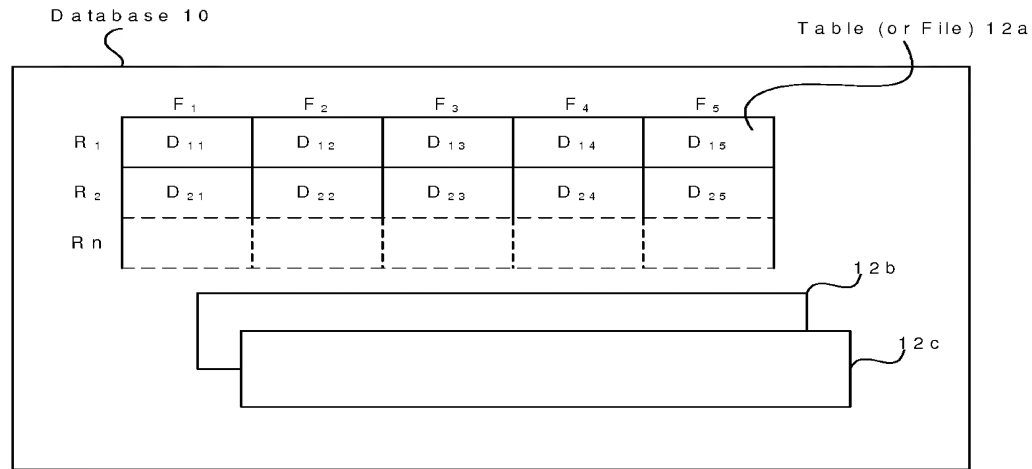


Figure A

Referring to Figure A, a particular record R_1 is represented with a plurality of fields F_1, F_2, F_3, F_4 and F_5 , respectively storing data $D_{11}, D_{12}, D_{13}, D_{14}$ and D_{15} . Database users U_1 and U_2 are also depicted in Figure A where passwords P_1 and P_2 are respectively associated with the database users U_1 and U_2 . Moreover, calculation expressions C_1 and C_2 are defined respectively for passwords P_1 and P_2 associated with database users U_1 and U_2 . Similar to the example noted in the Appeal Brief, the calculation expression C_1 is expressed as: ($F_2 = 'CA'$).

- 10 The calculation expression C_1 defines access for the first password P_1 , and thereby the first database user U_1 . Moreover, calculation expression C_1 can be evaluated for each of the individual records (R_1 - R_n). This means that in order to evaluate the calculation expression C_1 ($F_2 = 'CA'$) for the first record (R_1), the data in the corresponding field (F_2) is obtained and subsequently used to evaluate the calculation expression C_1 in order to determine whether the first database user U_1 should be granted access to the first record. Thus, actual data in the second field (F_2) of the first record (R_1), namely, D_{12} is used to determine whether access to the first record R_1 should be granted. Next, the second field (F_2) of the second record (R_2), namely D_{22} ,
- 15

can be used to evaluate the calculation expression C1 ($F_2 = 'CA'$) for the second record, and so on.

In response to the Examiner's answer, it is respectfully submitted that the Examiner has not provided any factual evidence supporting a finding that "defining a calculation expression for a password" is taught by the prior art. Clearly, the mere
5 assertion that general use of password are known does not address this specific claimed feature.

Furthermore, it is respectfully submitted that the Examiner has not provided any logical explanation as how the Granted Permissions Table of *Bapat et al.* can possibly
10 be connected to passwords as the Granted Permissions Table can be provided in place of a password mechanism.

Still further, it is respectfully submitted that the Examiner's statement that "it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the step of identifying a password as taught by *Elmasri* with the
15 *Bapat et al.* teaching in order to secure and protect data from misuse and intruders" (Examiner's Answer, page 22) does not provide a factual basis for establishing a prima facie case of obviousness as it uses the Applicant's own claimed invention in order to dismiss it as prior art.

In view of the foregoing, it is respectfully submitted that the Examiner's rejection
20 of claim 11-15 and 38-42 is erroneous. Accordingly, the rejection of claims 11-15 and 38-42 should be reversed.

Respectfully submitted,
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